



CLASS SPECIFICATION

| <u>TITLE</u> | <u>GRADE</u> | <u>EEO-4</u> | <u>CODE</u> |
|---------------------------|--------------|--------------|-------------|
| HEAT PLANT SPECIALIST IV | 34 | G | 9.422 |
| HEAT PLANT SPECIALIST III | 33 | G | 9.425 |
| HEAT PLANT SPECIALIST II | 32 | G | 9.420 |
| HEAT PLANT SPECIALIST I | 27 | G | 9.428 |

SERIES CONCEPT

Heat Plant Specialists operate, adjust, monitor, maintain, clean and repair high and/or low pressure boilers and hot water heat generating equipment, auxiliary equipment such as fuel and combustion systems, compressors, pumps, steam lines, steam traps, heat exchangers, water lines, controls, gauges, and emergency power generators.

Check system functions by monitoring and/or adjusting a computerized energy management system, combustion and safety controls, and pressure and temperature gauges to ensure safe and efficient operation of heat plant equipment; take water samples; analyze chemical properties of feed water; add chemicals and blow down water level controls as needed to prevent deposit and sludge buildup.

Perform preventive maintenance by lubricating motors and fans, replacing drive belts and cleaning equipment and surrounding areas to promote safety and maximum efficiency of equipment.

Perform seasonal overhauls and inspection preparation of heat plant and heat distribution systems by dismantling and cleaning boilers, repairing or replacing refractories, repacking valves, repairing pumps and seals, and checking and calibrating controls according to agency policies and regulatory requirements.

Install, retrofit and fabricate new equipment and components utilizing electrical, welding and plumbing skills in order to update the system or replace worn parts.

Maintain records of system operating conditions, maintenance performed and equipment malfunctions in accordance with agency policies and procedures and regulatory requirements.

Prepare budget requests for maintenance and equipment replacement.

Respond to emergencies such as utility or system failures as required.

Perform related duties as assigned.

CLASS CONCEPTS

Heat Plant Specialist IV: Under limited supervision, incumbents plan, assign and supervise the work of skilled and semi-skilled Heat Plant Specialists engaged in operating, adjusting, maintaining and repairing high and low pressure steam and hot water heat generating equipment and perform all or part of the duties described in the series concept. Incumbents are responsible for data entry of heat plant characteristics and weather conditions into a computerized energy management system.

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CLASS CONCEPTS (cont'd)

Heat Plant Specialist IV (cont'd)

Positions in this class are distinguished from those at the lower level by complexities involved in directing the operation and maintenance of heat plant utilizing high and low pressure steam systems, high and low pressure water systems and associated distribution systems such as at the University of Nevada, Reno. In addition, positions in this class supervise and schedule work for a large skilled staff.

Heat Plant Specialist III: Under general supervision, incumbents perform all of the duties described in the series concept and either:

- 1) in a correctional environment, function as a leadworker for inmate crews on a regular and recurring basis, document inmate performance through completion of periodic performance reports, and are responsible for implementing security procedures which include securing the work area from unauthorized inmates and accountability for assigned inmates, staff, tools, and equipment; or
- 2) serve as a leadworker for skilled Heat Plant Specialist II's by assigning and reviewing work and providing training and input to work performance evaluations; or
- 3) supervise semi-skilled and/or unskilled staff to include providing orientation and training, assigning, reviewing work, and conducting performance evaluations.

Positions in this class are distinguished from those at the lower levels by the supervision or leadworker responsibilities that require judgment and decisions of a supervisory nature and by the independence with which duties are performed. At this level, incumbents also provide budget input as well as technical expertise and assistance to higher-level staff in determining future plant operation needs.

Heat Plant Specialist II: Under general supervision, incumbents perform maintenance, diagnostic and repair duties associated with a heat plant. This is the journey level in the series.

Heat Plant Specialist I: Under close supervision, incumbents perform the most routine duties described in the series concept and do not independently identify or solve problems, adjust controls, make repairs or prepare heat plant equipment for seasonal overhauls or inspections. Duties of this nature are performed under close supervision or while assisting a higher-level Heat Plant Specialist.

Positions in this class function below the journey level and progression to the next level is not automatic.

MINIMUM QUALIFICATIONS

HEAT PLANT SPECIALIST IV

EDUCATION AND EXPERIENCE: Completion of a recognized heat plant apprenticeship program followed by two years of journey level experience as a heat plant specialist; **OR** two years as a Heat Plant Specialist III in Nevada State service; **OR** an equivalent combination of education and experience.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Ability to: schedule and oversee diverse and complex assignments associated with operation of a large heat plant; supervise and direct the work of skilled employees; operate, adjust, maintain and repair high and low pressure steam and hot water heat generating equipment and auxiliary equipment; *and all knowledge, skills and abilities required at the lower levels.*

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MINIMUM QUALIFICATIONS (cont'd)

HEAT PLANT SPECIALIST IV (cont'd)

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):
Working knowledge of: a computerized energy management system.

HEAT PLANT SPECIALIST III

EDUCATION AND EXPERIENCE: Completion of a recognized heat plant apprenticeship program followed by one year of journey level experience as a heat plant specialist; **OR** one year of experience as a Heat Plant Specialist II in Nevada State service; **OR** an equivalent combination of education and experience.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: heat distribution equipment and emergency power generators. **Ability to:** prepare reports and keep accurate records; estimate material, maintain inventories and make budget projections; estimate material and labor needed to complete a job; determine annual inventory and maintenance needs relative to boiler operation. **Skill in:** the use of hand and power tools and test instruments used to maintain, troubleshoot and repair heat plant equipment; *and all knowledge, skills and abilities required at the lower levels.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: the occupational hazards and safety procedures associated with heat plant systems. **General knowledge of:** departmental and State purchasing procedures; local and State regulations affecting heat plant operations; principles and practices of supervision. **Ability to:** plan, schedule and perform heat plant maintenance and repair according to agency needs, seasonal demands and regulatory requirements; supervise and direct the work of a small subordinate staff; in a prison setting, supervise and direct the work inmates and implement approved security measures.

HEAT PLANT SPECIALIST II

EDUCATION AND EXPERIENCE: Completion of a recognized heat plant apprenticeship program; **OR** an equivalent combination of education and experience.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Working knowledge of: principles, methods, tools and equipment associated with high and low pressure steam and hot water heating systems; occupational hazards and safety procedures associated with heat plant systems. **Ability to:** operate equipment, tools and instruments used in repairing or diagnosing malfunctions of a heat plant; *and all knowledge, skills and abilities required at the lower level.*

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: the methods and applications of temperature and humidity control; backup power generating equipment; physical properties of fuel, fuel combustion and fuel safety limits associated with heating/air conditioning systems. **Ability to:** monitor and adjust system functions using a computerized energy management system; perform electrical, welding and plumbing tasks associated with a heat plant.

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MINIMUM QUALIFICATIONS (cont'd)

HEAT PLANT SPECIALIST I

EDUCATION AND EXPERIENCE: Two years of supervised experience in the operation, maintenance and repair of commercial steam heating systems; OR an equivalent combination of education and experience.

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

General knowledge of: methods, materials, tools and equipment used in a steam or hot water heating plant. **Ability to:** operate and perform preventive maintenance on high and low pressure steam or hot water heating systems; prepare and maintain routine records; read gauges and meters associated with steam or hot water heating systems; read service manuals; respond quickly in emergencies. **Skill in:** the use of hand and power tools.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Working knowledge of: meters, gauges and alarm systems of the heat plant; procedures used to test water, blow down water columns and record heat plant conditions. **General knowledge of:** emergency power generators; departmental procedures and local and State regulations affecting heat plant operations.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

| | <u>9.425</u> | <u>9.420</u> | <u>9.428</u> |
|--------------|-----------------------|--------------|-----------------------|
| ESTABLISHED: | 7/1/91P 11/29/90PC | 4/1/66 | 7/1/91P 11/29/90PC |
| REVISED: | | 1/7/83-3 | |
| REVISED: | | 10/25/85-3 | |
| REVISED: | | 7/1/91P | |
| | | 11/29/90PC | |
| REVISED: | 9/19/03PC | 9/19/03PC | 9/19/03PC |